

51. (Once Amended). A device for performing thermal therapy of at least one of the epidermis and dermis of a patient's skin, comprising:

a source of light characterized by a combination of balanced optical parameters for a light output beam with the combination adjusted for a particular thermal therapy application;

B1 a housing for said source of light and having a mirror disposed for collecting the light from said light source and said housing providing said output light beam without use of an optical fiber, said housing further including a collimator defining a large output area for said output light beam for applying thermal therapy to a large area of the patient's skin relative to that of an optical fiber; and

a system for controlling said combination of balanced optical parameters with said combination selected from the group consisting of (a) light wavelength of said output light beam and pulse width in the range of about 10^{-5} sec to 10^{-1} sec. [of said output light beam] (b) energy density and light wavelength, (c) pulse width and energy density and (d) combinations of (a) and (b), and said combination of balanced optical parameters enabling achievement of a desired thermal heating protocol necessary to carry out thermal therapy treatment of at least one of the epidermis and the dermis of the patient's skin.

B2 53. (Once Amended). The device as defined in Claim 51 wherein said housing is disposed [proximal to] proximate the patient's skin.

B3 63. (Once amended). A device for performing thermal therapy of at least one of the epidermis and dermis of a patient's skin, comprising:

a source of light for generating a light beam characterized by at least one optical parameter for a particular thermal therapy application;

a system for controlling said at least one characteristic optical parameter of said light source, said at least one characteristic optical parameter selected from the group consisting of light wavelength distribution, pulse width of the light wavelength distribution, energy density and combinations thereof, thereby allowing achievement of a desired optical condition for applying a thermal heating protocol to a particular portion of at least one of the epidermis and the dermis of the patient; and

a light source housing for receiving said light beam output from said light source and having an opening of large size such that said [incoherent] light beam is output for performing the thermal therapy over a large exposure area of the patient's skin.

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64. (Once Amended). A device for performing thermal therapy of at least one of the epidermis and dermis of a patient's skin, comprising:

a source of light for generating a light beam characterized by a plurality of balanced optical parameters with the parameters adjusted for a particular thermal therapy application;

a system for controlling said plurality of balanced optical parameters of said light beam, said plurality of balanced optical parameters selected from the group consisting of (a) light wavelength distribution and pulse width, (b) light wavelength distribution and energy density and (c) a combination of (a) and (b), said plurality of optical parameters thereby enabling achievement of a desired optical condition for applying a thermal heating protocol necessary to carry out thermal therapy treatment of at least one of the epidermis and the dermis of the patient's skin; and

a light source housing for containment of said light beam and having an opening of large size comprising a collimator element of adjustable

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dimensions, such that said light beam is output through the opening for performing the thermal therapy over a large exposure area of the patient's skin.

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69. (Once Amended). The device as defined in Claim 64 wherein a collimator element defines shape of the output light beam and is disposed proximal [to] the patient's skin.

75 80. (Once Amended). A device for treating vascular lesions in a patient's skin, comprising:

a housing containing an incoherent light source for generating an incoherent light beam characterized by at least one optical parameter for treating vascular lesions, said housing having an opening defining beam of small width relative to length; and

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a system for controlling said at least one characteristic optical parameter of said incoherent light source, said at least one characteristic optical parameter selected from the group consisting of a light wavelength distribution between about 500 nm to 1000 nm, a pulse width of the light wavelength distribution of about 1 to 100 msec and an energy density, thereby allowing achievement of an optical condition for treating vascular lesions in the patient's skin without burning of the skin.

29 85. (New). A device for performing thermal therapy of at least one of the epidermis and dermis of a patient's skin, comprising:

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a source of light for generating a light beam characterized by a plurality of balanced optical parameters with the parameters adjusted for a particular thermal therapy application;

a system for controlling said plurality of balanced optical parameters of said light beam, said plurality of balanced optical parameters selected from the group consisting of (a) light wavelength distribution and pulse width, (b) light wavelength distribution and energy density and (c) a combination of (a) and (b), said plurality of optical parameters thereby enabling achievement of a desired optical condition for applying a thermal heating protocol necessary to carry out thermal therapy treatment of at least one of the epidermis and the dermis of the patient's skin;

36 a light source housing for containment of said light beam and having an opening of large size such that said light beam is output through the opening for performing the thermal therapy over a large exposure area of the patient's skin ; and

a detector disposed outside the housing for sampling a portion of the output light beam.

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86. (New). The device as defined in Claim ²⁹85 wherein the device does not include an optical fiber for outputting the light beam to the patient's skin through the opening of the light source housing.

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87. (New). The device as defined in Claim ²⁹85 wherein the opening in the housing comprises a collimator element of adjustable dimensions.

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88. (New). The device as defined in Claim ²⁹85 further including a filter disposed along a path traveled by the light beam.

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89. (New). The device as defined in Claim ²⁹85 wherein a collimator element defines shape of the output light beam and is disposed proximal to the patient's skin.

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90. (New). A device for performing thermal therapy of at least one of the epidermis and dermis of a patient's skin, comprising:

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a source of light for generating a light beam characterized by a plurality of balanced optical parameters with the parameters adjusted for a particular thermal therapy application;

a system for controlling said plurality of balanced optical parameters of said light beam, said plurality of balanced optical parameters selected from the group consisting of (a) light wavelength distribution and pulse width, (b) light wavelength distribution and energy density and (c) a combination of (a) and (b), said plurality of optical parameters thereby enabling achievement of a desired optical condition for applying a thermal heating protocol necessary to carry out thermal therapy treatment of at least one of the epidermis and the dermis of the patient's skin;

36 a light source housing for containment of said light beam and having an opening of large size such that said light beam is output through the opening for performing the thermal therapy over a large exposure area of the patient's skin ; and

wherein a collimator element defines shape of the output light beam

and is disposed proximal to the patient's skin.

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31. (New). The device as defined in Claim 30 wherein the device does not include an optical fiber for outputting the light beam to the patient's skin through the opening of the light source housing.

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32. (New). The device as defined in Claim 30 wherein said opening in the housing comprises a collimator element of adjustable dimensions.

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33. (New). The device as defined in Claim 30 wherein the opening in the housing comprises a collimator element of adjustable dimensions.

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34. (New). The device as defined in Claim 30 further including a filter disposed along a path traveled by the light beam.